4.2.F. 0513020607.

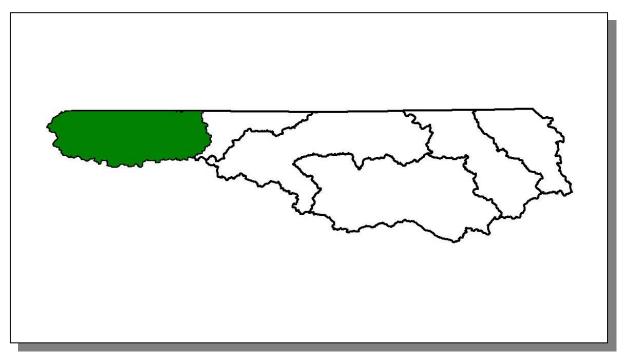


Figure 4-189. Location of Subwatershed 0513020607. All Red River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.F.i. 051302060701 (Noahs Spring Branch).

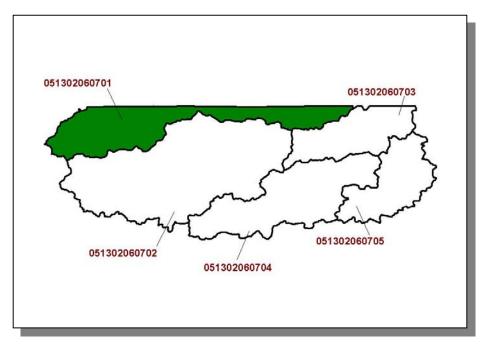


Figure 4-190. Location of Subwatershed 051302060701. All HUC-12 subwatershed boundaries are shown for reference.

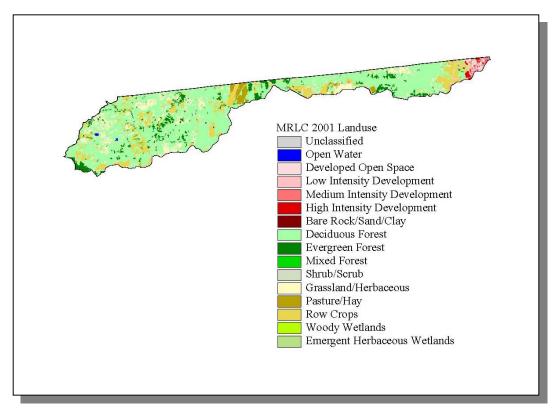


Figure 4-191. Illustration of Land Use Distribution in Subwatershed 051302060701.

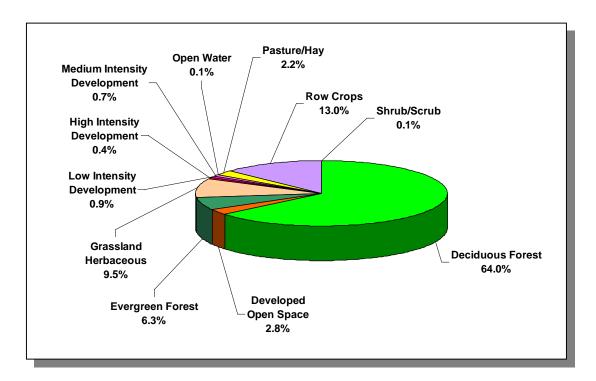


Figure 4-192. Land Use Distribution in Subwatershed 051302060701. More information is provided in Appendix IV.

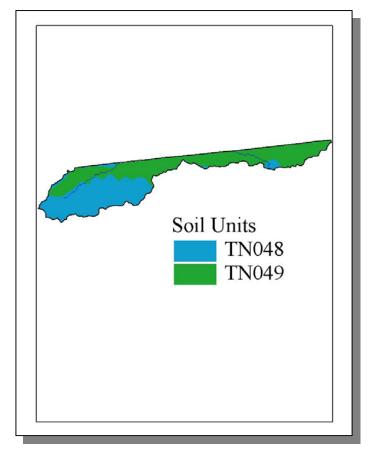


Figure 4-193. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060701.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN048	8.00	В	1.38	5.06	Silty Loam	0.42
TN049	0.00	С	1.30	5.94	Silty Loam	0.34

Table 4-151. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060701. The definition of "Hydrologic Group" is provided in Appendix IV.

	COUNTY POPULATION					IATED PO N WATER	PULATION SHED	
				Portion of				% Change
County	1990	1997	2000	Watershed (%)	1990	1997	2000	(1990-2000)
Montgomery	100,498	124,369	134,768	1.6	1,608	1,990	2,157	34.1
Stewart	9,479	11,241	12,370	2.98	282	335	368	30.5
Total	109,977	135,610	147,138		1,890	2,325	2,525	33.6

Table 4-152. Population Estimates in Subwatershed 051302060701.

				NUMBER OF HO	USING UNITS	
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Clarksville	Montgomery	75,494	27,642	23,610	3,956	76

Table 4-153. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051302060701.

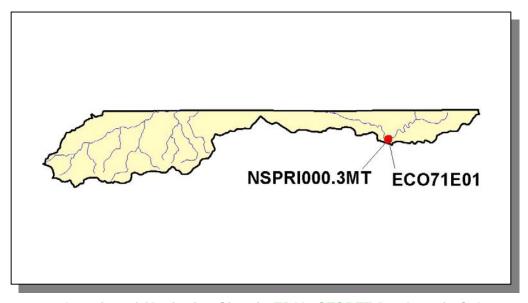


Figure 4-194. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051302060701. More information, including site names and locations and stations located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.F.i.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.F.i.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS									
Beef Cow	Cattle	Milk Cow	Hogs	Sheep					
62	226	<5	14	<5					

Table 4-154. Summary of Livestock Count Estimates in Subwatershed 051302060701.According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS								
County Beef Cow Cattle Milk Cow Chickens (Layers) Hogs Sheep								
Montgomery 16,051 30,959 760 913 1,408 107								
Stewart	0	8,925	0	477	683	21		

Table 4-155. Summary of Livestock Count Estimates in Montgomery and Stewart Counties. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

	INVEN	ITORY	REMOVAL RATE		
	Forest Land	Timber Land	Growing Stock	Sawtimber	
County	(thousand acres)	(thousand acres)	(million cubic feet)	(million board feet)	
Montgomery					
Stewart	219.7	219.7	5.4	25.4	

Table 4-156. Forest Acreage and Annual Removal Rates (1987-1994) in Montgomery and Stewart Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.06
Grass (Hayland)	0.14
Legumes, Grass (Hayland)	0.40
Grass, Forbs, Legumes (Mixed Pasture)	0.35
Corn (Row Crops)	4.10
Soybeans (Row Crops)	7.53
Tobacco (Row Crops)	12.02
Conservation Reserve Program Lands	0.41
Other Land in Farms	0.30
Farmsteads and Ranch Headquarters	0.10

Table 4-157. Annual Estimated Total Soil Loss in Subwatershed 051302060701.

4.2.F.ii. 051302060702 (Piney Fork Creek).

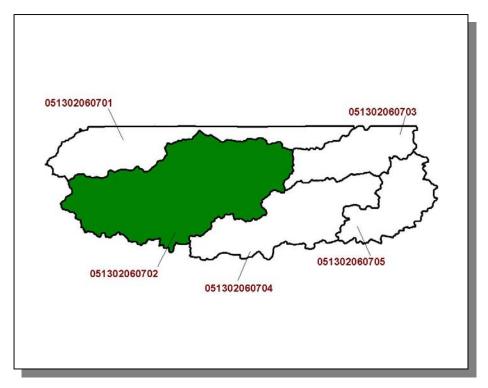


Figure 4-195. Location of Subwatershed 051302060702. All HUC-12 subwatershed boundaries are shown for reference.

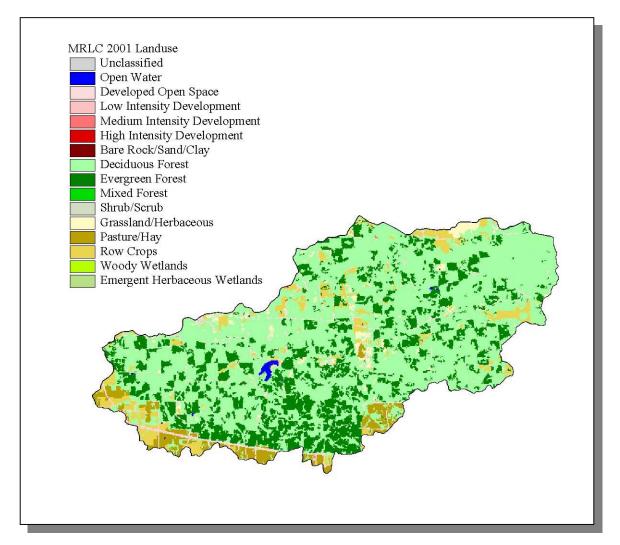


Figure 4-196. Illustration of Land Use Distribution in Subwatershed 051302060702.

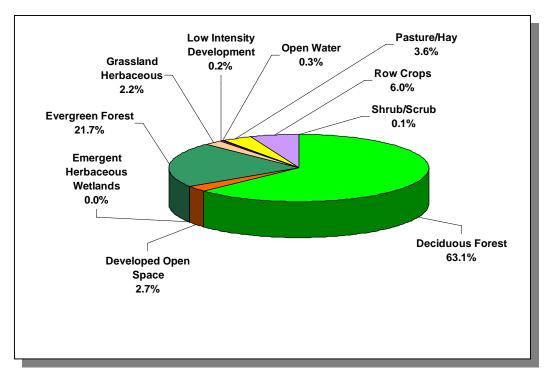


Figure 4-197. Land Use Distribution in Subwatershed 051302060702. More information is provided in Appendix IV.

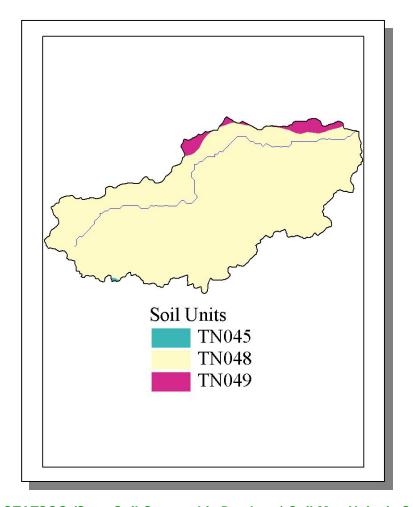


Figure 4-198. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060702.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN045	0.00	В	1.95	5.45	Loam	0.35
TN048	8.00	В	1.38	5.06	Silty Loam	0.42
TN049	0.00	С	1.30	5.94	Silty Loam	0.34

Table 4-158. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060702. The definition of "Hydrologic Group" is provided in Appendix IV.

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	COUNTY POPULATION			ESTIMATED POPULATION IN WATERSHED				
County	1990	1997	2000	Portion of Watershed (%)	1990	1997	2000	% Change (1990-2000)
Montgomery	100,498	124,369	134,768	5.14	5,163	6,389	6,924	34.1
Stewart	9,479	11,241	12,370	4.45	422	501	551	30.6
Total	109,977	135,610	147,138		5,585	6,890	7,475	33.8

Table 4-159. Population Estimates in Subwatershed 051302060702.

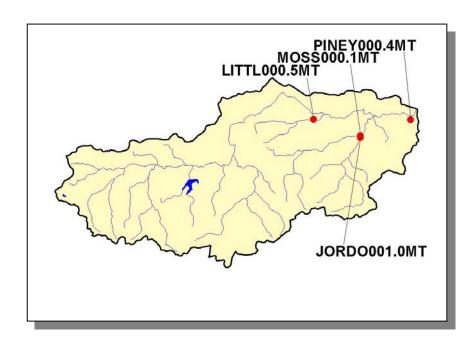


Figure 4-199. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051302060702. More information, including site names and locations and stations located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.F.ii.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.F.ii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS								
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep			
76	1,041	<5	<5	75	<5			

Table 4-160. Summary of Livestock Count Estimates in Subwatershed 051302060702.According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS								
County Beef Cow Cattle Milk Cow Chickens (Layers) Hogs Shee								
Montgomery	16,051	30,959	760	913	1,408	107		
Stewart	0	8,925	0	477	683	21		

Table 4-161. Summary of Livestock Count Estimates in Montgomery and Stewart Counties. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

	INVEN	NTORY	REMOVAL RATE		
	Forest Land	Timber Land	Growing Stock	Sawtimber	
County	(thousand acres)	ousand acres) (thousand acres)		(million board feet)	
Montgomery					
Stewart	219.7	219.7	5.4	25.4	

Table 4-162. Forest Acreage and Annual Removal Rates (1987-1994) in Montgomery and Stewart Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.88
Grass (Hayland)	0.18
Legumes, Grass (Hayland)	0.40
Grass, Forbs, Legumes (Mixed Pasture)	0.41
Corn (Row Crops)	5.28
Soybeans (Row Crops)	6.56
Tobacco (Row Crops)	15.06
Conservation Reserve Program Lands	0.41
Other Land in Farms	0.30
Farmsteads and Ranch Headquarters	0.08

Table 4-163. Annual Estimated Total Soil Loss in Subwatershed 051302060702.

4.2.F.iii. 051302060703 (Little West Fork Red River).

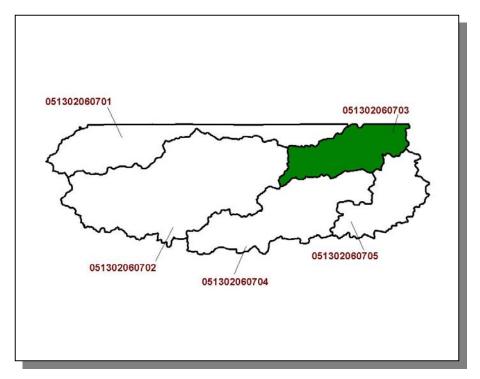


Figure 4-200. Location of Subwatershed 051302060703. All Red River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

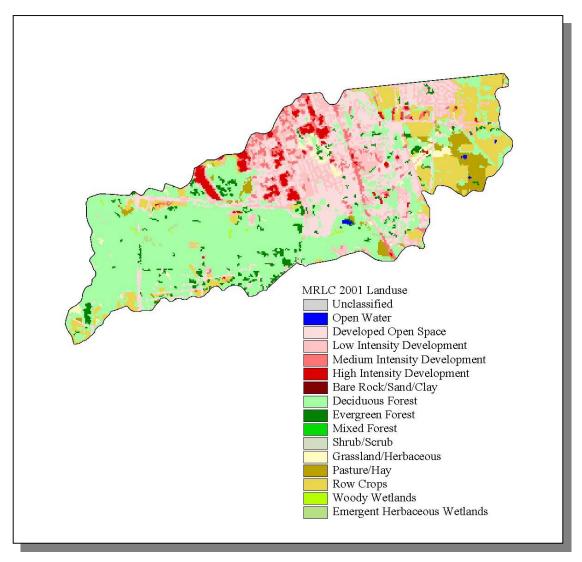


Figure 4-201. Illustration of Land Use Distribution in Subwatershed 051302060703.

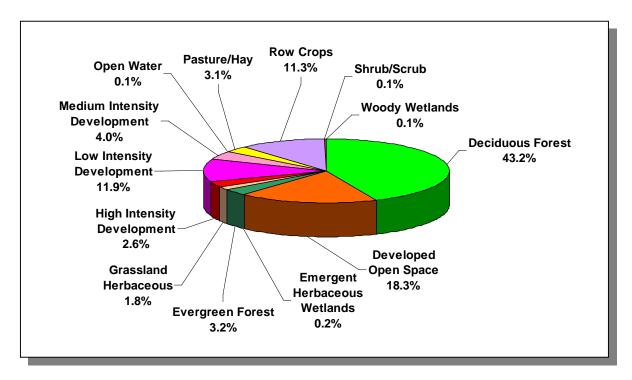


Figure 4-202. Land Use Distribution in Subwatershed 051302060703. More information is provided in Appendix IV.

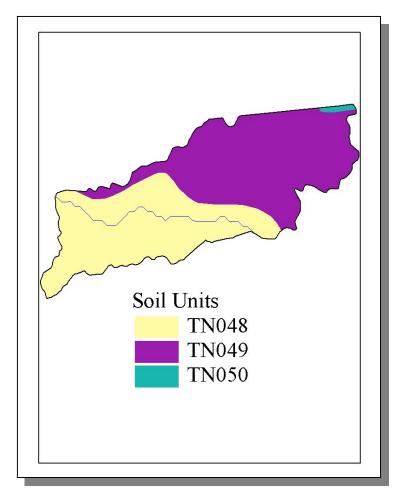


Figure 4-203. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060703.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN048	8.00	В	1.38	5.06	Silty Loam	0.42
TN049	0.00	С	1.30	5.94	Silty Loam	0.34
TN050	0.00	В	1.30	5.97	Silty Loam	0.33

Table 4-164. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102060703. The definition of "Hydrologic Group" is provided in Appendix IV.

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	COUNTY POPULATION					IATED PO N WATER	PULATION SHED	
County	1990	1997	2000	Portion of Watershed (%)			% Change (1990-2000)	
Montgomery	100,498	124,369	134,768	2.72	2,729	3,377	3,659	34.1

Table 4-165. Population Estimates in Subwatershed 051302060703.

			NUMBER OF HOUSING UNITS				
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other	
Clarksville	Montgomery	75,494	27,642	23,610	3,956	76	

Table 4-166. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051302060703.



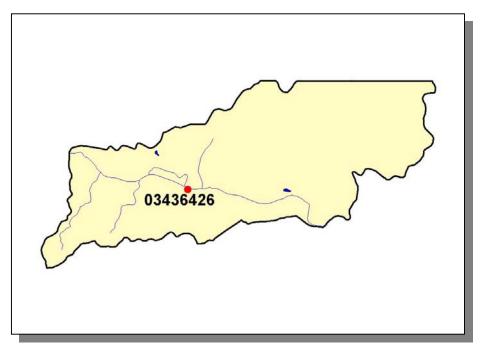


Figure 4-204. Location of Historical Streamflow Data Collection Sites in Subwatershed 051302060703. More information is provided in Appendix IV.

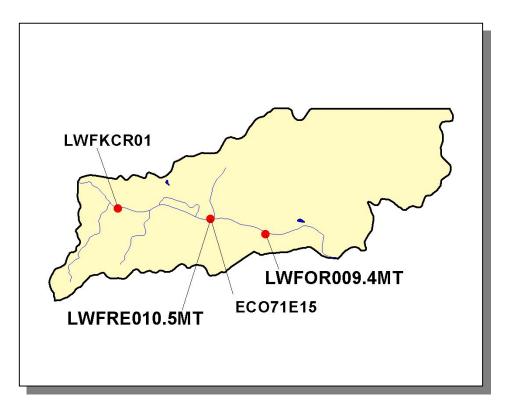


Figure 4-205. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051302060703. More information, including site names and locations and stations located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.F.iii.a. Point Source Contributions.

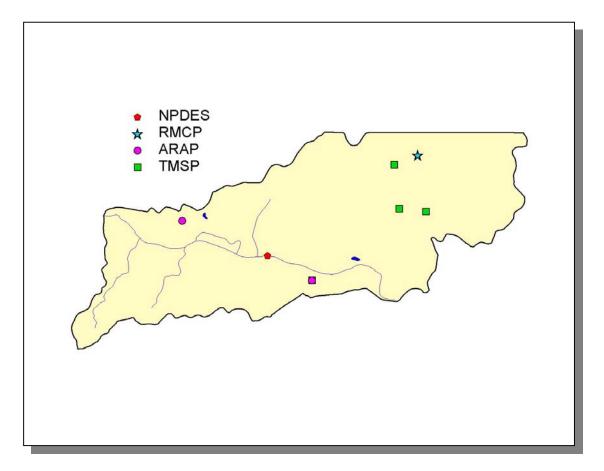


Figure 4-206. Location of Permits Issued in Subwatershed 051302060703. More information, including the names of facilities, is provided in Appendix IV.

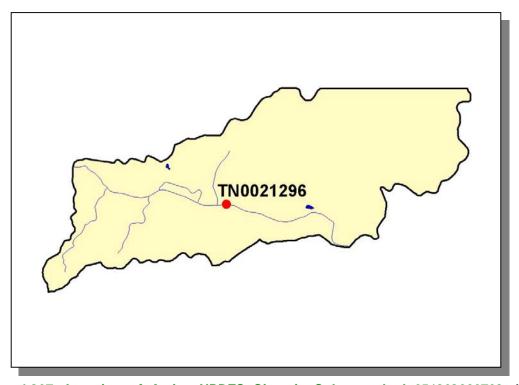


Figure 4-207. Location of Active NPDES Sites in Subwatershed 051302060703. More information, including the names of facilities, is provided in Appendix IV.

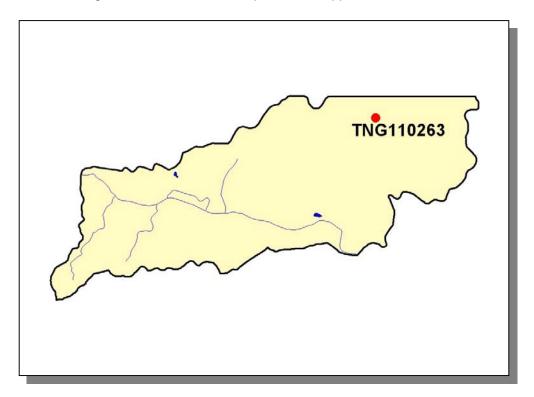


Figure 4-208. Location of Ready Mix Concrete Plants (RMCP) in Subwatershed 051302060703. More information is provided in Appendix IV.

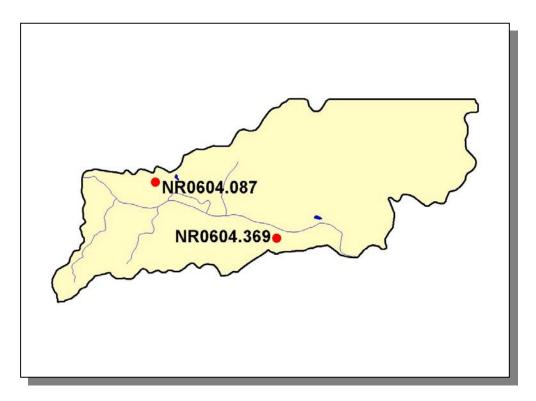


Figure 4-209. Location of Aquatic Resource Alteration Permit (ARAP) Sites (Individual Permits) in Subwatershed 051302060703. More information is provided in Appendix IV.

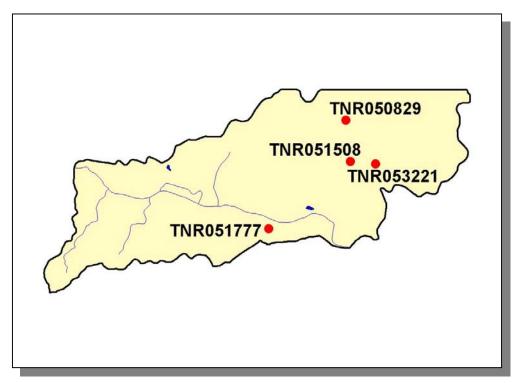


Figure 4-210. Location of TMSP Sites in Subwatershed 051302060703. More information, including the names of facilities, is provided in Appendix IV.

4.2.F.iii.a.i. Dischargers to Water Bodies Listed on the 2004 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2004 303(d) list in Subwatershed 051302060703:

TN0021296 (CH2M Hill Services) discharges to Little West Fork Creek
@ RM 10.4

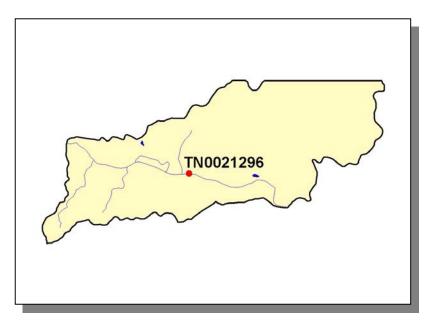


Figure 4-211. Location of NPDES Dischargers to Water Bodies Listed on the 2004 303(d) List in Subwatershed 051302060703. More information, including the names of facilities, is provided in Appendix IV.

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0021296			3.361	1.777	

Table 4-167. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051302060703. Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

PERMIT#	Р	N	Cu	Hg	FLOW
TN0021296	Χ	Χ	Χ	Χ	Χ

Table 4-168. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051302060703.

						SETTLEABLE		
PERMIT #	WET	CBOD ₅	E. coli	NH_3	TSS	SOLIDS	DO	рН
TN0021296	Х	Χ	Χ	Χ	Χ	Χ	Χ	X

Table 4-169. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051302060703. WET, Whole Effluent Toxicity; CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.

4.2.F.iii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS									
Beef Cow Cattle Milk Cow Hogs Shee									
259	500	12	23	<5					

Table 4-170. Summary of Livestock Count Estimates in Subwatershed 051302060703. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS									
County Beef Cow Cattle Milk Cow Chickens (Layers) Hogs Sheep									
Montgomery	16,051	30,959	760	913	1,408	107			

Table 4-171. Summary of Livestock Count Estimates in Montgomery County. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

	INVEN	ITORY	REMOVAL RATE		
County	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)	
Montgomery					

Table 4-172. Forest Acreage and Annual Removal Rates (1987-1994) in Montgomery County.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.45
Grass (Hayland)	0.29
Legumes, Grass (Hayland)	0.40
Grass, Forbs, Legumes (Mixed Pasture)	0.55
Corn (Row Crops)	8.04
Soybeans (Row Crops)	4.26
Tobacco (Row Crops)	22.25
Conservation Reserve Program Lands	0.41
Farmsteads and Ranch Headquarters	0.04

Table 4-173. Annual Estimated Total Soil Loss in Subwatershed 051302060703.

4.2.F.iv. 051302060704 (Fletchers Fork).

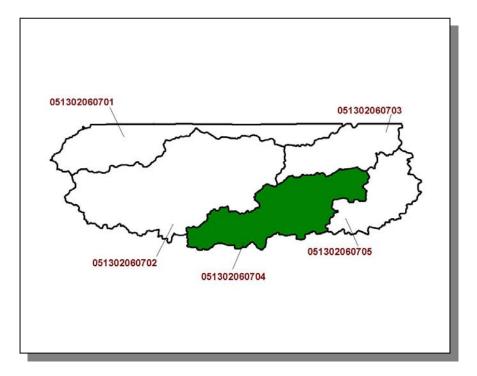


Figure 4-212. Location of Subwatershed 051302060704. All HUC-12 subwatershed boundaries are shown for reference.

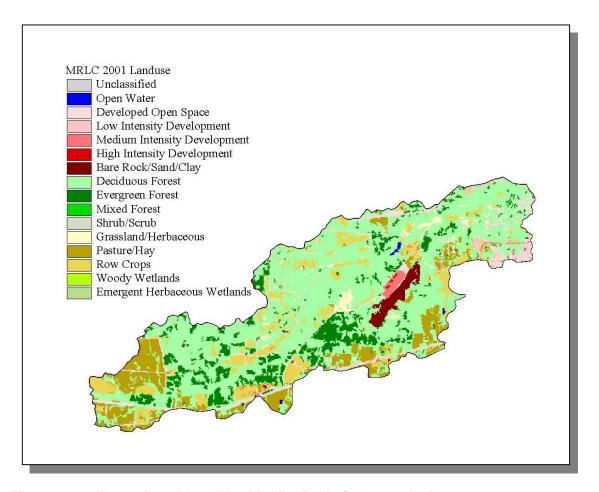


Figure 4-213. Illustration of Land Use Distribution in Subwatershed 051302060704.

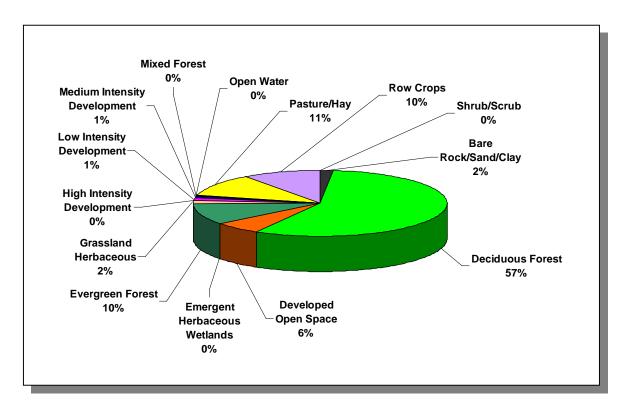


Figure 4-214. Land Use Distribution in Subwatershed 051302060704. More information is provided in Appendix IV.

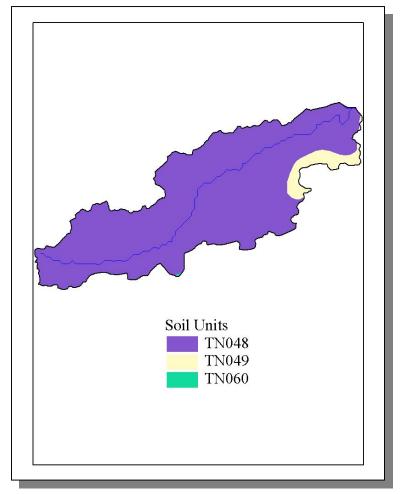


Figure 4-215. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060704.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN048	8.00	В	1.38	5.06	Silty Loam	0.42
TN049	0.00	С	1.30	5.94	Silty Loam	0.34
TN060	5.00	С	1.30	5.32	Silty Loam	0.39

Table 4-174. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060704. The definition of "Hydrologic Group" is provided in Appendix IV.

	COUNTY POPULATION					NATED PC	PULATION SHED	
County	1990	00 1997 2000		Portion of Watershed (%)	1990	1997	2000	% Change (1990-2000)
Montgomery	100,498	124,369	134,768	4.78	4,801	5.942	6.438	34.1

Table 4-175. Population Estimates in Subwatershed 051302060704.

			NUMBER OF HOUSING UNITS				
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other	
Clarksville	Montgomery	75,494	27,642	23,610	3,956	76	

Table 4-176. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051302060704.

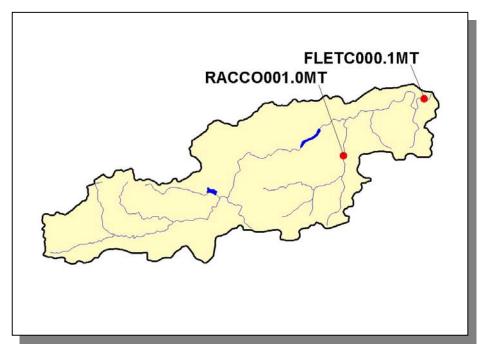


Figure 4-216. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051302060704. More information, including site names and locations and stations located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.F.iv.a. Point Source Contributions.

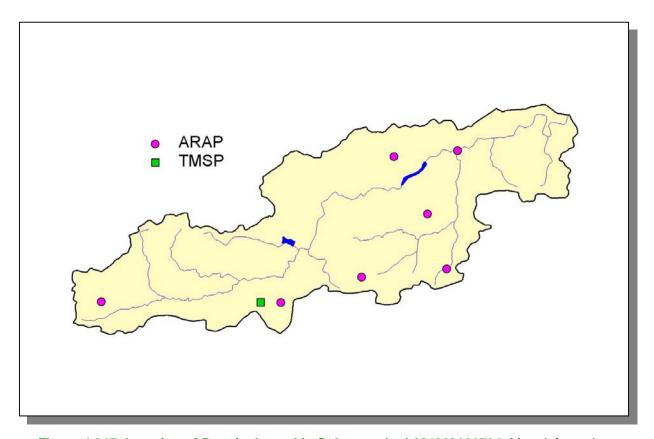


Figure 4-217. Location of Permits Issued in Subwatershed 051302060704. More information, including the names of facilities, is provided in Appendix IV.

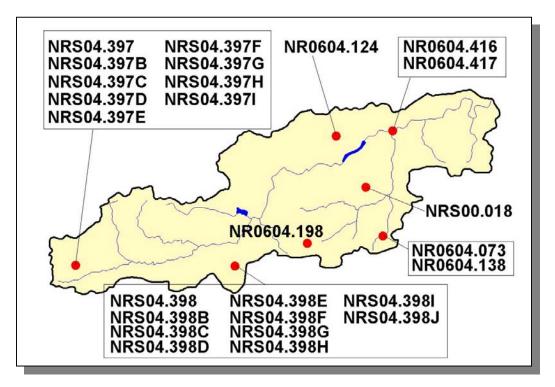


Figure 4-218. Location of Aquatic Resource Alteration Permit (ARAP) Sites (Individual Permits) in Subwatershed 051302060704. More information is provided in Appendix IV.



Figure 4-219. Location of TMSP Sites in Subwatershed 051302060704. More information, including the names of facilities, is provided in Appendix IV.

4.2.F.iv.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS								
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep			
333	641	16	<5	29	<5			

Table 4-177. Summary of Livestock Count Estimates in Subwatershed 051302060704. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS							
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep	
Montgomery	16,051	30,959	760	913	1,408	107	

Table 4-178. Summary of Livestock Count Estimates in Montgomery County. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

	INVEN	NTORY	REMOVAL RATE		
County	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)	
Montgomery					

Table 4-179. Forest Acreage and Annual Removal Rates (1987-1994) in Montgomery County.

CDODC	TONC/ACDEMEAD
CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.45
Grass (Hayland)	0.29
Legumes, Grass (Hayland)	0.40
Grass, Forbs, Legumes (Mixed Pasture)	0.55
Corn (Row Crops)	8.04
Soybeans (Row Crops)	4.26
Tobacco (Row Crops)	22.25
Conservation Reserve Program Lands	0.41
Farmsteads and Ranch Headquarters	0.04

Table 4-180. Annual Estimated Total Soil Loss in Subwatershed 051302060704.

4.2.F.v. 051302060705 (Little West Fork Red River).

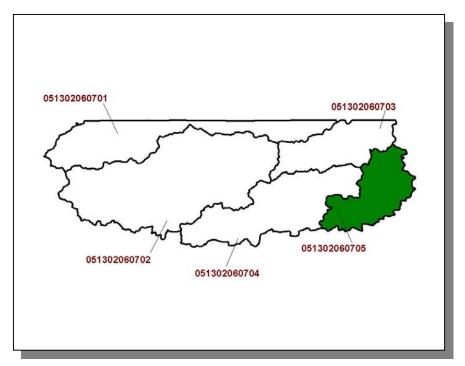


Figure 4-220. Location of Subwatershed 051302060705. All Red River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

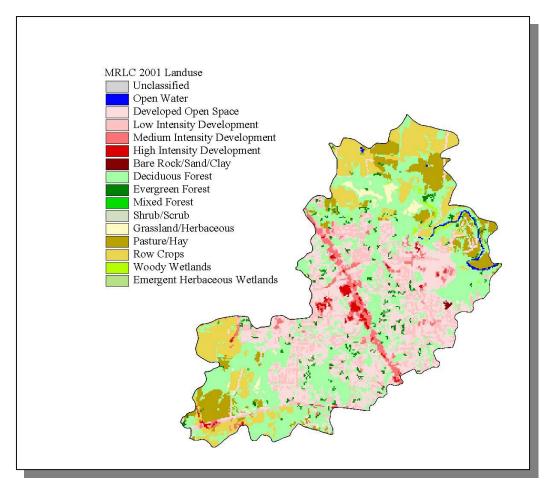


Figure 4-221. Illustration of Land Use Distribution in Subwatershed 051302060705.

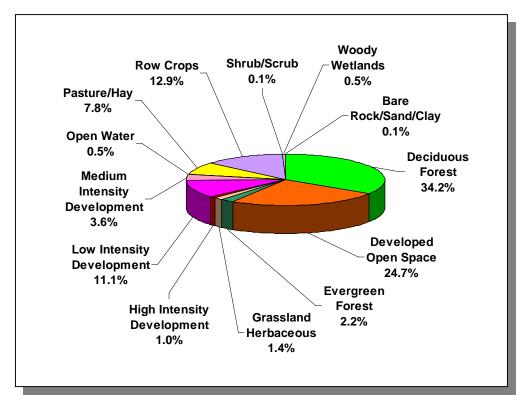


Figure 4-222. Land Use Distribution in Subwatershed 051302060705. More information is provided in Appendix IV.

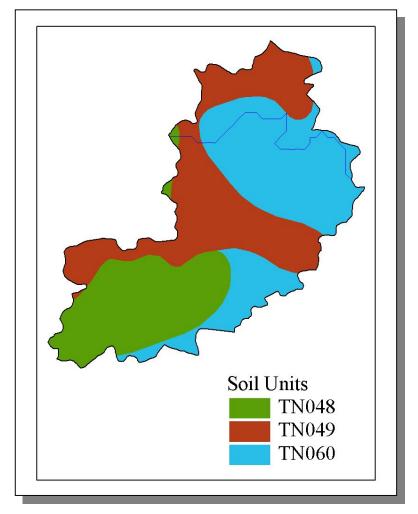


Figure 4-223. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060705.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN048	8.00	В	1.38	5.06	Silty Loam	0.42
TN049	0.00	О	1.30	5.94	Silty Loam	0.34
TN060	5.00	С	1.30	5.32	Silty Loam	0.39

Table 4-181. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060705. The definition of "Hydrologic Group" is provided in Appendix IV.

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	COUNTY POPULATION			ESTIMATED POPULATION IN WATERSHED				
County	1990 1997 2000		Portion of Watershed (%)	1990	1997	2000	% Change (1990-2000)	
Montgomery	100,498	124,369	134,768	2.68	2,695	3,335	3,614	34.1

Table 4-182. Population Estimates in Subwatershed 051302060705.

				NUMBER OF HO	DUSING UNITS	
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Clarksville	Montgomery	75,494	27,642	23,610	3,956	76

Table 4-183. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051302060705.

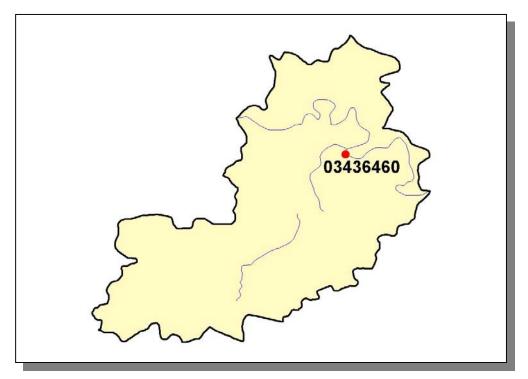


Figure 4-224. Location of Historical Streamflow Data Collection Sites in Subwatershed 051302060705. More information is provided in Appendix IV.

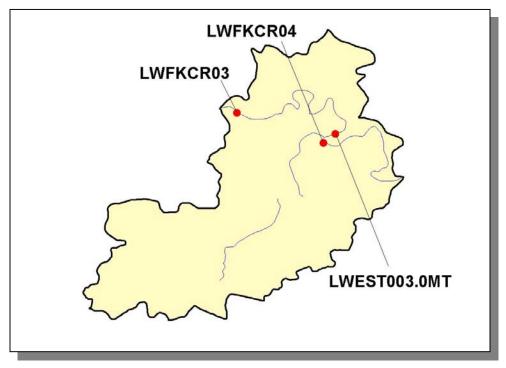


Figure 4-225. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051302060705. More information, including site names and locations and stations located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.F.v.a. Point Source Contributions.

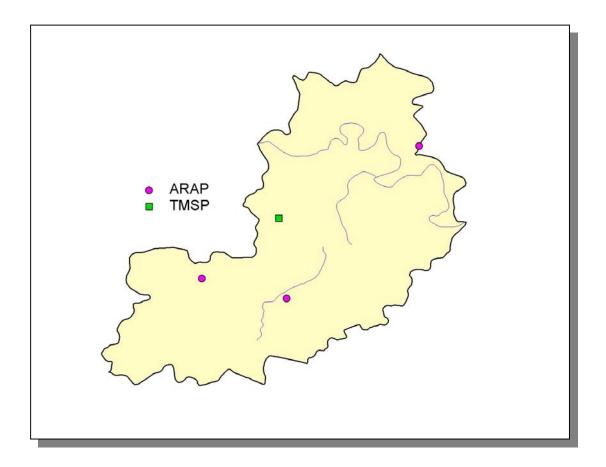


Figure 4-226. Location of Permits Issued in Subwatershed 051302060705. More information, including the names of facilities, is provided in Appendix IV.



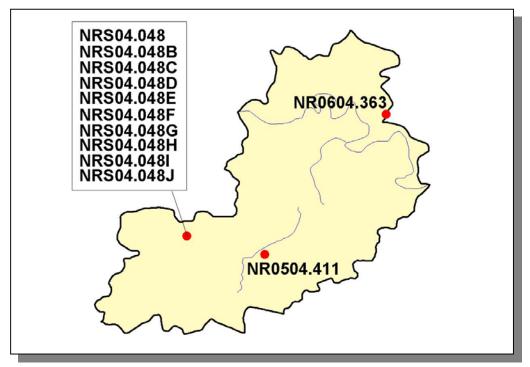


Figure 4-227. Location of Aquatic Resource Alteration Permit (ARAP) Sites (Individual Permits) in Subwatershed 051302060705. More information is provided in Appendix IV.



Figure 4-228. Location of TMSP Sites in Subwatershed 051302060705. More information, including the names of facilities, is provided in Appendix IV.

4.2.F.v.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS								
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep			
375	724	18	<5	33	<5			

Table 4-184. Summary of Livestock Count Estimates in Subwatershed 051302060705.According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS								
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep		
Montgomery 16,051 30,959 760 913 1,408 107								

Table 4-185. Summary of Livestock Count Estimates in Montgomery County. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

	INVEN	ITORY	REMOVAL RATE		
County	Forest Land Timber Land (thousand acres) (thousand acres)		Growing Stock Sawtimber (million cubic feet) (million board feet)		
Montgomery					

Table 4-186. Forest Acreage and Annual Removal Rates (1987-1994) in Montgomery County.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.45
Grass (Hayland)	0.29
Legumes, Grass (Hayland)	0.40
Grass, Forbs, Legumes (Mixed Pasture)	0.55
Corn (Row Crops)	8.04
Soybeans (Row Crops)	4.26
Tobacco (Row Crops)	22.25
Conservation Reserve Program Lands	0.41
Farmsteads and Ranch Headquarters	0.04

Table 4-187. Annual Estimated Total Soil Loss in Subwatershed 051302060705.